

REMARKS

Claims 20-33, 36-37, 39-41 and 44-67 are pending. Claims 1-19, 34-35, 38 and 42-43 were previously cancelled. In the present Amendment, Claims 20, 36, 39 and 41 are amended, leaving Claims 21-33, 37, 40, 44-58 and 60-67 unchanged.

35 U.S.C. § 103(a) Rejections

Claims 20-33, 36-37, 39-41 and 44-67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,657,813 (“Knight”). The Examiner also took Official Notice that “it is well known for machines to employ a toothed rubber member between opposed, protrusioned elements for the purpose of protecting the drive mechanism” and referenced U.S. Patent Nos. 5,564,981 (“Iwabuchi”), 6,183,368 (“King”) and 5,607,023 (“Palm”) Reconsideration of the rejections is respectfully requested.

To establish a *prima facie* case of obviousness, three basic criteria must be met. *M.P.E.P.* §§ 706.02(j) and 2143.

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine the reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be both found in the prior art, not in applicants' disclosure.

Independent Claim 20 and dependent Claims 21-33

Claim 20 defines a drive mechanism for a power tool, the power tool including a motor including a drive shaft and an output member adapted to support a tool element, the drive mechanism comprising a gear driven by the drive shaft for rotation about an axis, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear, the hub including a drive member offset from the axis and connected to the output member to drivingly connect the hub to the output member, a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member, the drive arm being pivotably connected to the drive member and being pivotably connected to the output member, and structure positioned between the gear and the hub, the structure selectively

transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub.

Knight does not teach or suggest a power tool including, among other things, structure positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

In addition, Knight does not teach or suggest a power tool including a hub including a drive member offset from the axis and a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member, the drive arm being pivotably connected to the drive member and being pivotably connected to the output member. Rather, the pruning saw 10 of Knight includes a pin 125, which extends upwardly from the cam element 120 and is engageable in a cross guide 126. As shown in Figs. 2-3 of Knight, the cross guide 126 is secured to an output element 127 for sliding movement with the output element 127 relative to the saw housing 14.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 20.

King does not cure the deficiencies of Knight. King does not teach or suggest a drive mechanism for a power tool including, among other things, a motor including a drive shaft and an output member adapted to support a tool element. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

King also does not teach or suggest a hub including a drive member offset from the axis and a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member, the drive arm being pivotably connected to the drive member and being pivotably connected to the output member. Rather, the coupling assembly 10 of King has a linear arrangement and includes circular coupling members 14, 16, a generally

circular elastomeric spider 18 and a generally circular housing assembly 12 positioned between the first coupling member 14 and the spider 18 and the second coupling member 16.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 20.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a drive mechanism for a power tool including, among other things, a motor including a drive shaft and an output member adapted to support a tool element. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Iwabuchi also does not teach or suggest a hub including a drive member offset from the axis and a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member, the drive arm being pivotably connected to the drive member and being pivotably connected to the output member. Rather, the power window drive element of Iwabuchi has a linear arrangement and includes a generally circular input rotary body 6, a generally circular output rotary body 11 and a generally circular elastic body 10 positioned between the input rotary body 6 and the output rotary body 11.

For these and other reasons, Iwabuchi does not teach or suggest the subject matter defined by Claim 20.

In addition, Palm does not cure the deficiencies of Knight. Palm does not teach or suggest a drive mechanism including, among other things, a hub including a drive member offset from the axis. Rather, the tool 9 of Palm includes a radial force device 510 supported in a gear 518 and a jack shaft 24 extending outwardly from a central axis of the radial drive force device 510. A wobble plate member 28 is supported on the jack shaft 24 forwardly and spaced apart from the drive force device 510 by radially inwardly extending portions of the gear 518.

Palm also does not teach or suggest a drive mechanism including a drive arm connecting the drive member to the output member to convert rotation of the hub to reciprocation of the output member, the drive arm being pivotably connected to the drive member and being pivotably connected to the output member. Rather, a lower end of the drive arm 34 of Palm supports a bearing 32 and is secured to the wobble plate member 28. A number of elements, including the drive arm 35 of the secondary wobble plate and a bearing 32 secured to the drive arm 35, are positioned between the drive arm 34 and the drive force device 510 of Palm.

For these and other reasons, Palm does not teach or suggest the subject matter defined by Claim 20.

To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all of the claim limitations. *Assuming arguendo* that the teachings of Knight, King, Iwabuchi and Palm could or should be combined, Applicants respectfully point out that the claimed structure is not provided by the references. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 20 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King, Iwabuchi and Palm, alone or in combination do not teach or suggest all the claim limitations of Claim 20. Accordingly, Claim 20 is allowable. Dependent Claims 21-33 depend from Claim 20 and are allowable for the same and other reasons. In addition, the additional subject matter defined by the dependent claims provides separate bases for allowance.

Independent Claim 36 and dependent Claims 37 and 44-52

Claim 36 defines a power tool comprising a housing, a motor supported by the housing and having a drive shaft, an output member supported by the housing and adapted to support a tool element, and a drive mechanism supported by the housing and operable to drive the output member, the drive mechanism including a gear driven by the drive shaft for rotation about an axis and including a protrusion, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear and including a hub protrusion and a drive member offset from the axis, the gear protrusion drivingly engaging the hub protrusion, a drive arm pivotably connected to the drive member and the output member and being operable to convert rotation of the hub to reciprocation of the output member, and structure positioned between the gear protrusion and the hub protrusion, the structure selectively transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub.

Knight does not teach or suggest a power tool including, among other things, structure positioned between the gear protrusion and the hub protrusion, the structure selectively transmitting drive force from the gear to the hub and selectively allowing relative movement between the gear and the hub. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring

force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

In addition, Knight does not teach or suggest a power tool including a hub including a drive member offset from the axis and a drive arm pivotably connected to the drive member and the output member and being operable to convert rotation of the hub to reciprocation of the output member. Rather, as mentioned above, the pruning saw 10 of Knight includes a pin 125, which extends upwardly from the cam element 120 and is engageable in a cross guide 126. As shown in Figs. 2-3 of Knight, the cross guide 126 is secured to an output element 127 for sliding movement with the output element 127 relative to the saw housing 14.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 36.

King does not cure the deficiencies of Knight. King does not teach or suggest a power tool including, among other things, a housing, a motor supported by the housing and having a drive shaft, an output member supported by the housing and adapted to support a tool element, and a drive mechanism supported by the housing and operable to drive the output member. Rather, as mentioned above, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

King also does not teach or suggest a hub including a drive member offset from the axis and a drive arm pivotably connected to the drive member and the output member and being operable to convert rotation of the hub to reciprocation of the output member. Rather, as mentioned above, the coupling assembly 10 of King has a linear arrangement and includes circular coupling members 14, 16, a generally circular elastomeric spider 18 and a generally circular housing assembly 12 positioned between the first coupling member 14 and the spider 18 and the second coupling member 16.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 36.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a power tool including, among other things, a housing, a motor supported by the housing and having a drive shaft, an output member supported by the housing and adapted to support a

tool element, and a drive mechanism supported by the housing and operable to drive the output member. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Iwabuchi also does not teach or suggest a power tool including a hub including a drive member offset from the axis and a drive arm pivotably connected to the drive member and the output member and being operable to convert rotation of the hub to reciprocation of the output member. Rather, the power window drive element of Iwabuchi has a linear arrangement and includes a generally circular input rotary body 6, a generally circular output rotary body 11 and a generally circular elastic body 10 positioned between the input rotary body 6 and the output rotary body 11.

For these and other reasons, Iwabuchi does not teach or suggest the subject matter defined by Claim 36.

In addition, Palm does not cure the deficiencies of Knight. Palm does not teach or suggest a power tool including, among other things, a hub including a drive member offset from the axis. Rather, the tool 9 of Palm includes a radial force device 510 supported in a gear 518 and a jack shaft 24 extending outwardly from a central axis of the radial drive force device 510. A wobble plate member 28 is supported on the jack shaft 24 forwardly and spaced apart from the drive force device 510 by radially inwardly extending portions of the gear 518.

Palm also does not teach or suggest a power tool including a drive arm pivotably connected to the drive member and the output member and being operable to convert rotation of the hub to reciprocation of the output member. Rather, a lower end of the drive arm 34 of Palm supports a bearing 32 and is secured to the wobble plate member 28. A number of elements, including the drive arm 35 of the secondary wobble plate and a bearing 32 secured to the drive arm 35, are positioned between the drive arm 34 and the drive force device 510 of Palm.

For these and other reasons, Palm does not teach or suggest the subject matter defined by Claim 36.

To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all of the claim limitations. *Assuming arguendo* that the teachings of Knight, King, Iwabuchi and Palm could or should be combined, Applicants respectfully point out that the claimed structure is not provided by the references. Therefore, Applicants respectfully

submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 36 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King, Iwabuchi and Palm, alone or in combination do not teach or suggest all the claim limitations of Claim 36. Accordingly, Claim 36 is allowable. Dependent Claims 37 and 44-52 depend from Claim 36 and are allowable for the same and other reasons. In addition, the additional subject matter defined by the dependent claims provides separate bases for allowance.

Independent Claim 39 and dependent Claims 40 and 53-60

Claim 39 defines a reciprocating saw comprising a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle, the drive mechanism including a gear driven by the drive shaft for rotation about an axis, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear and including a drive member offset from the axis and connected to the output member to drivingly connect the hub to the output member, a drive arm having a first end and a second end and being operable to convert rotation of the hub to reciprocation of the output member, the first end being connected to the drive member for pivoting movement relative to the hub and the second end being pivotably connected to the output member, and structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle.

Knight does not teach or suggest a reciprocating saw including, among other things, structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

In addition, Knight does not teach or suggest a reciprocating saw including, among other things, a hub including a drive member offset from the axis and a drive arm having a first end

and a second end and being operable to convert rotation of the hub to reciprocation of the output member, the first end being connected to the drive member for pivoting movement relative to the hub and the second end being pivotably connected to the output member. Rather, the pruning saw 10 of Knight includes a pin 125, which extends upwardly from the cam element 120 and is engageable in a cross guide 126. As shown in Figs. 2-3 of Knight, the cross guide 126 is secured to an output element 127 for sliding movement with the output element 127 relative to the saw housing 14.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 39.

King does not cure the deficiencies of Knight. King does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

King also does not teach or suggest a reciprocating saw including a hub including a drive member offset from the axis and a drive arm having a first end and a second end and being operable to convert rotation of the hub to reciprocation of the output member, the first end being connected to the drive member for pivoting movement relative to the hub and the second end being pivotably connected to the output member. Rather, as mentioned above, the coupling assembly 10 of King has a linear arrangement and includes circular coupling members 14, 16, a generally circular elastomeric spider 18 and a generally circular housing assembly 12 positioned between the first coupling member 14 and the spider 18 and the second coupling member 16.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 39.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a

window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Iwabuchi also does not teach or suggest a reciprocating saw including a hub including a drive member offset from the axis and a drive arm having a first end and a second end and being operable to convert rotation of the hub to reciprocation of the output member, the first end being connected to the drive member for pivoting movement relative to the hub and the second end being pivotably connected to the output member. Rather, the power window drive element of Iwabuchi has a linear arrangement and includes a generally circular input rotary body 6, a generally circular output rotary body 11 and a generally circular elastic body 10 positioned between the input rotary body 6 and the output rotary body 11.

For these and other reasons, Iwabuchi does not teach or suggest the subject matter defined by Claim 39.

Palm also does not cure the deficiencies of Knight. Palm does not teach or suggest a reciprocating saw including, among other things, a drive arm having a first end and a second end and being operable to convert rotation of the hub to reciprocation of the output member, the first end being connected to the drive member for pivoting movement relative to the hub and the second end being pivotably connected to the output member. Rather, a lower end of the drive arm 34 of Palm supports a bearing 32 and is secured to the wobble plate member 28. A number of elements, including the drive arm 35 of the secondary wobble plate and a bearing 32 secured to the drive arm 35, are positioned between the drive arm 34 and the drive force device 510 of Palm.

For these and other reasons, Palm does not teach or suggest the subject matter defined by Claim 39.

To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all of the claim limitations. *Assuming arguendo* that the teachings of Knight, King, Iwabuchi and Palm could or should be combined, Applicants respectfully point out that the claimed structure is not provided by the references. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 39 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King, Iwabuchi and Palm, alone or in combination do not teach or suggest all the claim limitations of Claim 39. Accordingly, Claim 39 is allowable. Dependent Claims 40, 53-58 and

60 depend from Claim 39 and are allowable for the same and other reasons. In addition, the additional subject matter defined by the dependent claims provides separate bases for allowance.

Independent Claim 41 and dependent Claims 61-67

Claim 41 defines a reciprocating saw comprising a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle, the drive mechanism including a gear driven by the drive shaft for rotation about an axis, a hub selectively driven by the gear for rotation about the axis, the hub being movable relative to the gear and including a drive member offset from the axis, a drive arm pivotably connected to the drive member and the spindle to convert rotation of the hub to reciprocation of the spindle, and structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle. Claim 41 specifies that the gear defines a pocket and includes a gear protrusion in the pocket, wherein a portion of the hub is supported in the pocket and includes a hub protrusion, the gear protrusion drivingly engaging the hub protrusion, and wherein at least a portion of the structure is positioned between the gear protrusion and the hub protrusion.

Knight does not teach or suggest a reciprocating saw including, among other things, structure to absorb impact positioned between the gear and the hub, the structure selectively transmitting drive force from the gear to the hub and allowing relative movement between the gear and the hub to absorb an impact on the spindle. Rather, the pruning saw 10 of Knight includes a slip clutch including a gear 116 having an upper smooth surface, a cam element 120 having a lower smooth surface and a spring washer positioned below the gear 116 for providing an adjustable spring force between the lower smooth surface of the cam element 120 and the upper smooth surface of the gear 116.

In addition, Knight does not teach or suggest a hub including a drive member offset from the axis and a drive member pivotably connected to the drive member and the spindle to convert rotation of the hub to reciprocation of the spindle. Rather, the pruning saw 10 of Knight includes a pin 125, which extends upwardly from the cam element 120 and is engageable in a cross guide

126. As shown in Figs. 2-3 of Knight, the cross guide 126 is secured to an output element 127 for sliding movement with the output element 127 relative to the saw housing 14.

For these and other reasons, Knight does not teach or suggest the subject matter defined by Claim 41.

King does not cure the deficiencies of Knight. King does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, King discloses a “[f]lexible [coupling]... for transferring torque from output or drive shafts of devices such as an electric motor or internal combustion engine, to input shafts of various machines or devices, such as fans, packaging machines or pumps.” King, Column 1, lines 17-21.

King also does not teach or suggest a hub including a drive member offset from the axis and a drive member pivotably connected to the drive member and the spindle to convert rotation of the hub to reciprocation of the spindle. Rather, as mentioned above, the coupling assembly 10 of King has a linear arrangement and includes circular coupling members 14, 16, a generally circular elastomeric spider 18 and a generally circular housing assembly 12 positioned between the first coupling member 14 and the spider 18 and the second coupling member 16.

For these and other reasons, King does not teach or suggest the subject matter defined by Claim 41.

Iwabuchi also does not cure the deficiencies of Knight. Iwabuchi does not teach or suggest a reciprocating saw including, among other things, a housing, a motor supported by the housing and having a drive shaft, a spindle supported by the housing and adapted to support a saw blade, and a drive mechanism supported by the housing and operable to drive the spindle. Rather, Iwabuchi discloses a transmission buffer for “a motor [used] when a window of an automobile is raised or lowered by the turning force of the motor.” Iwabuchi, Column 1, lines 18-20.

Iwabuchi also does not teach or suggest a reciprocating saw including a hub including a drive member offset from the axis and a drive arm pivotably connected to the drive member and the spindle to convert rotation of the hub to reciprocation of the spindle. Rather, the power window drive element of Iwabuchi has a linear arrangement and includes a generally circular

input rotary body 6, a generally circular output rotary body 11 and a generally circular elastic body 10 positioned between the input rotary body 6 and the output rotary body 11.

For these and other reasons, Iwabuchi does not teach or suggest the subject matter defined by Claim 41.

Palm also does not cure the deficiencies of Knight. Palm does not teach or suggest a reciprocating saw including, among other things, a hub including a drive member offset from the axis and a drive arm pivotably connected to the drive member and the spindle to convert rotation of the hub to reciprocation of the spindle. Rather, a lower end of the drive arm 34 of Palm supports a bearing 32 and is secured to the wobble plate member 28. A number of elements, including the drive arm 35 of the secondary wobble plate and a bearing 32 secured to the drive arm 35, are positioned between the drive arm 34 and the drive force device 510 of Palm.

For these and other reasons, Palm does not teach or suggest the subject matter defined by Claim 41.

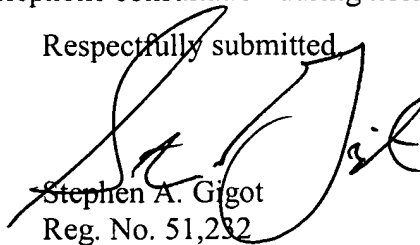
To establish a *prima facie* case of obviousness, the prior art references, when combined, must teach or suggest all of the claim limitations. *Assuming arguendo* that the teachings of Knight, King, Iwabuchi and Palm could or should be combined, Applicants respectfully point out that the claimed structure is not provided by the references. Therefore, Applicants respectfully submit that the Examiner has failed to present a *prima facie* case of obviousness of Claim 41 based upon the prior art as required by 35 U.S.C. § 103. For these and other reasons, Knight, King, Iwabuchi and Palm, alone or in combination do not teach or suggest all the claim limitations of Claim 41. Accordingly, Claim 41 is allowable. Dependent Claims 61-67 depend from Claim 41 and are allowable for the same and other reasons. In addition, the additional subject matter defined by the dependent claims provides separate bases for allowance.

CONCLUSION

In view of the foregoing, Applicants respectfully request entry of the above amendments and allowance of Claims 20-33, 36-37, 39-41, 44-58 and 59-67.

The undersigned is available for telephone consultation during normal business hours.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen A. Gigot", is written over the typed name and registration number.

Stephen A. Gigot

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